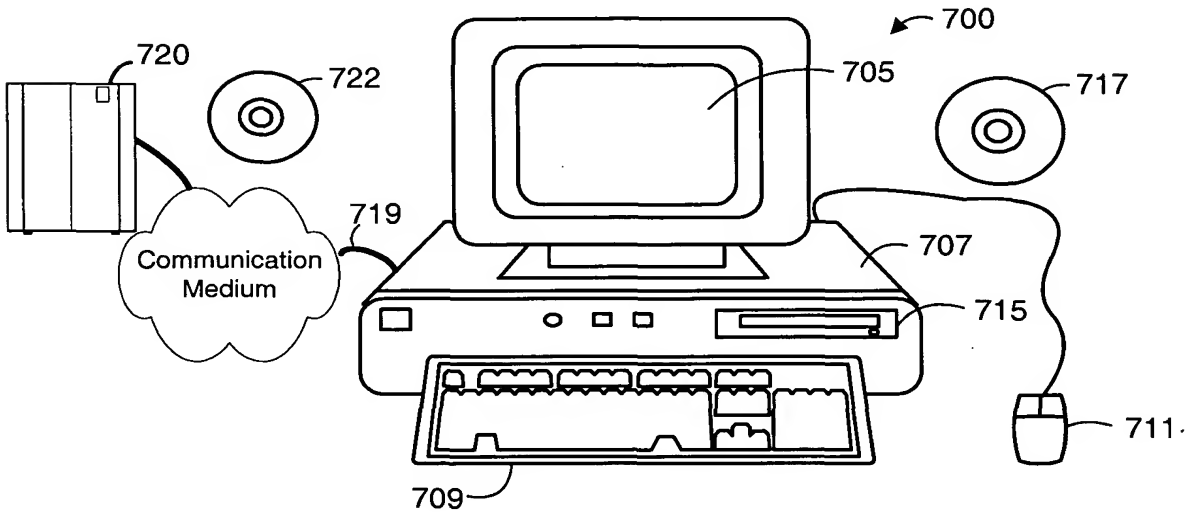
700
720
722
705
717
719
Communication Medium
707
715
711
709

FIG. 1

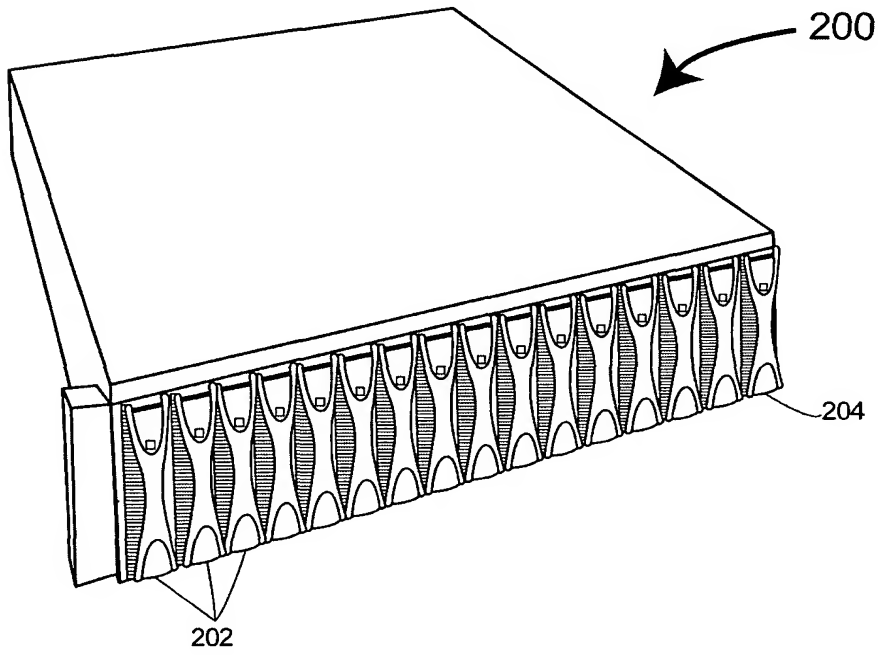
200
204
202

FIG. 2

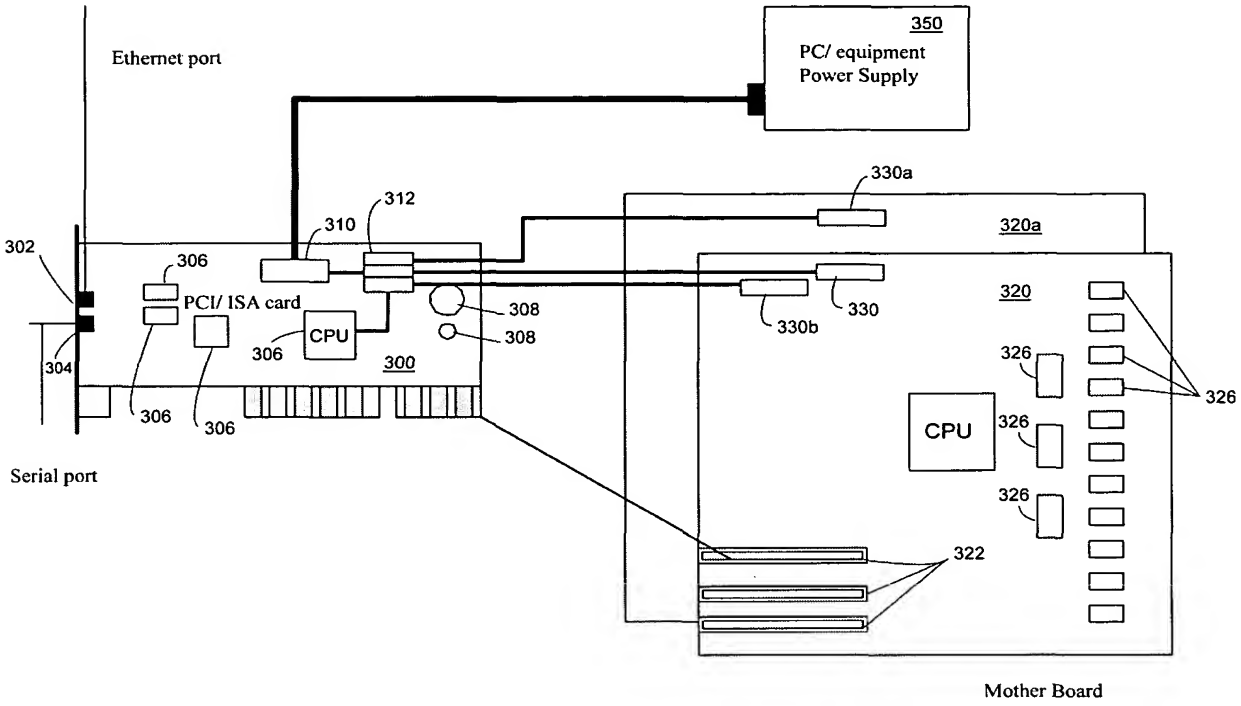
350
PC/ equipment
Power Supply
Ethernet port
330a
320a
312
310
302
306
PCI/ ISA card
CPU
308
308
306
300
330b
330
320
326
304
306
306
326
CPU
326
326
322
Serial port
Mother Board

FIG. 3

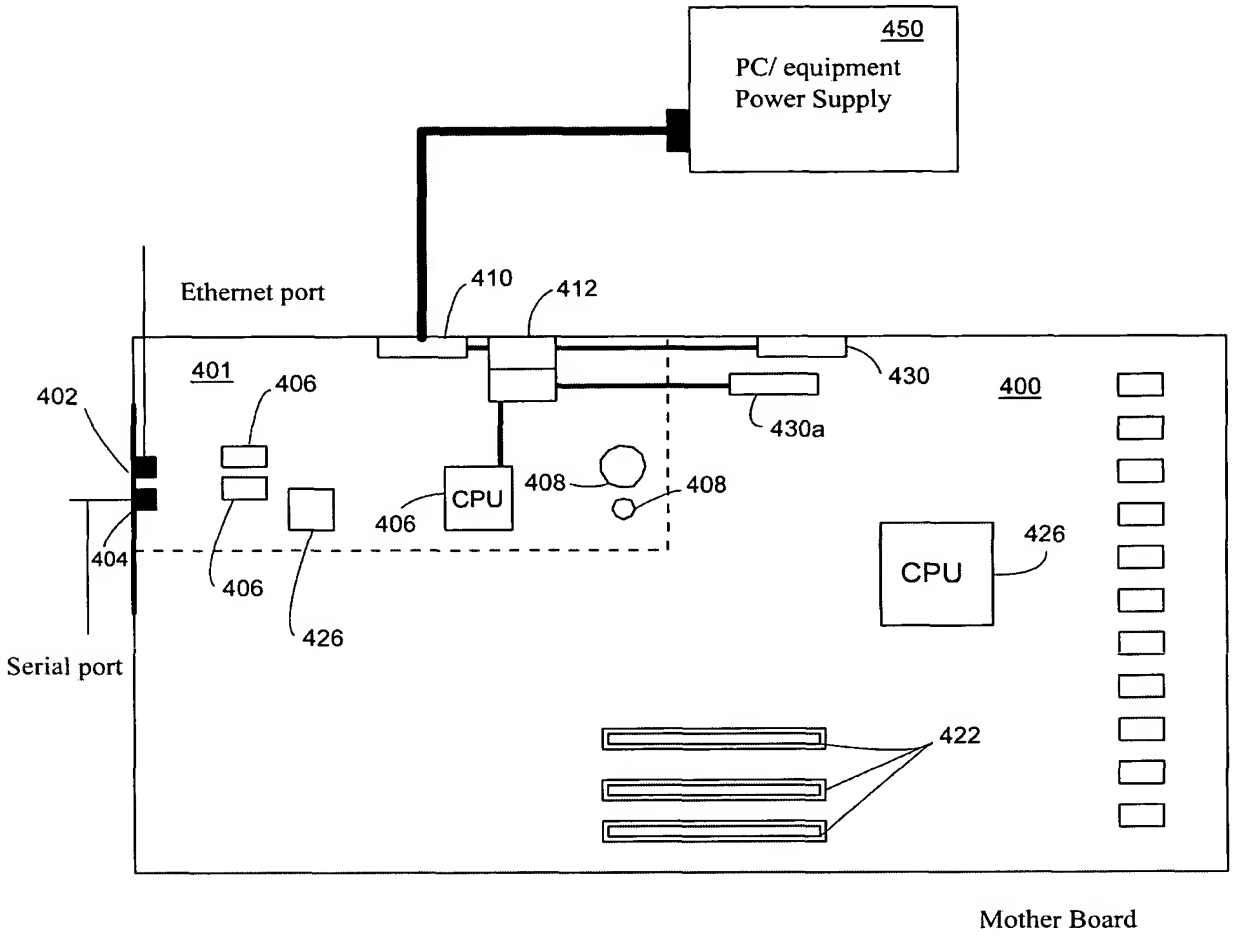
450
PC/ equipment
Power Supply
Ethernet port
410
412
401
406
402
430
400
430a
CPU
408
408
406
426
CPU
404
406
426
Serial port
422
Mother Board

FIG. 4

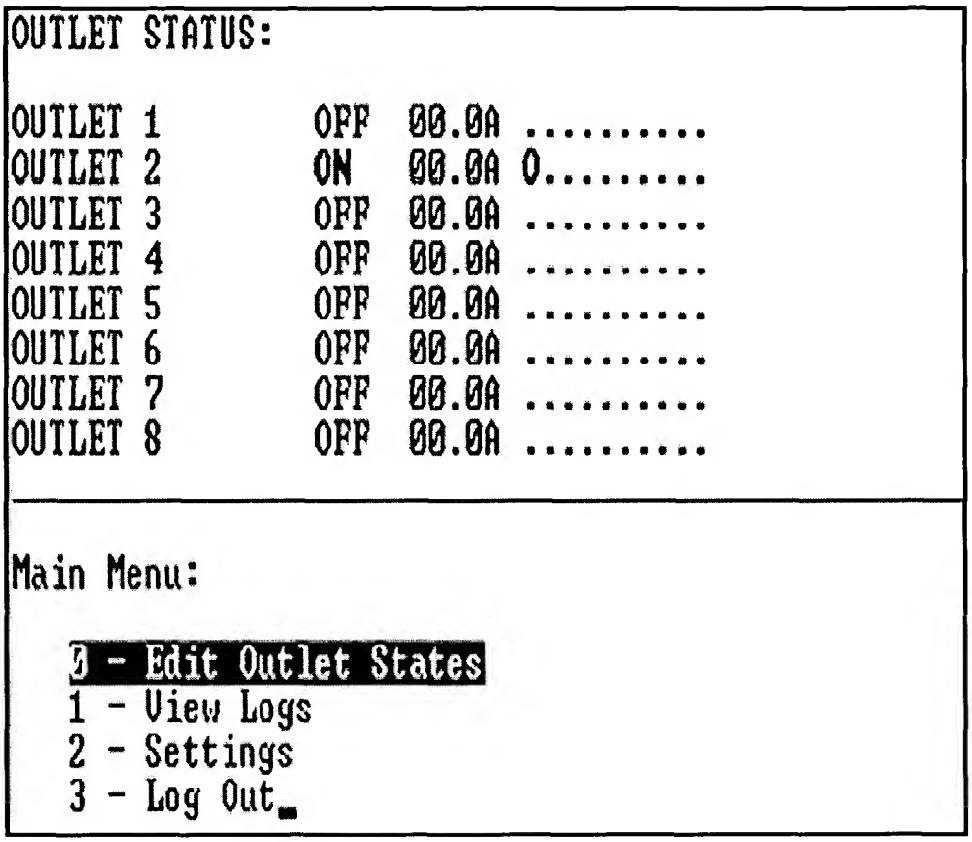
OUTLET STATUS:
OUTLET 1 OFF 00.0A .....
OUTLET 2 ON 00.0A 0.....
OUTLET 3 OFF 00.0A .....
OUTLET 4 OFF 00.0A .....
OUTLET 5 OFF 00.0A .....
OUTLET 6 OFF 00.0A .....
OUTLET 7 OFF 00.0A .....
OUTLET 8 OFF 00.0A .....
Main Menu:
0 - Edit Outlet States
1 - View Logs
2 - Settings
3 - Log Out

FIG. 5

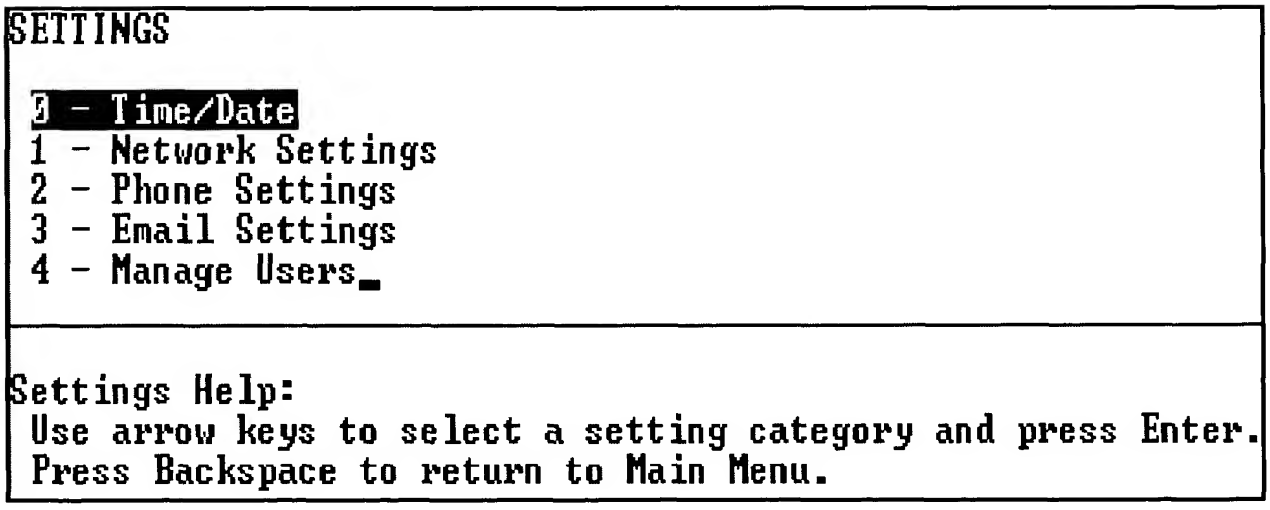
SETTINGS
0 - Time/Date
1 - Network Settings
2 - Phone Settings
3 - Email Settings
4 - Manage Users
Settings Help:
Use arrow keys to select a setting category and press Enter.
Press Backspace to return to Main Menu.

FIG. 6

```
SETTINGS-NETWORK (These settings will not take effect until after reboot)

 [x] Enable DHCP
 IP          : 192.168.001.000   Using: 192.168.0.2
 Subnet Mask : 255.255.255.000
 Gateway     : 192.168.001.001
 DNS         : 192.168.001.001
 Host        : DUALCOM-8-1
 Domain      : domain.com

 [REBOOT...]

Network Settings Help:
 WARNING: Rebooting may temporarily affect outlet states. Be sure attached
          Devices are powered off before rebooting.

 To use the web interface on the DUALCOM-8, Network Settings must be
 properly configured. For more information on each setting, consult your
 manual.

 Press Backspace to return to Settings Menu.
```

FIG. 8

```
SETTINGS-TIME/DATE

  Hour: 08
Minute: 20
 Month: 9
   Day: 4
  Year: 2002

Time/Date Help:
 The time and date are used for outlet scheduling and logging purposes.

 Press Backspace to return to Settings Menu.
```

FIG. 7

```
SETTINGS-Phone

 [x] Enable Phone Interface
 [ ] Allow Calls with no caller ID information.

 Phone PIN: ****************

Phone Settings Help:
 The Phone Interface allows a caller to control the SPS-8.
 To log into the phone interface, a caller must enter the Phone PIN.
 Once logged in, a caller can change/query the states of all outlets.
 Caller ID information is usually used for logging purposes. By choosing
 the appropriate option above, calls without Caller ID can be rejected for
 security reasons.

 Press Backspace to return to Settings Menu.
```

FIG. 9

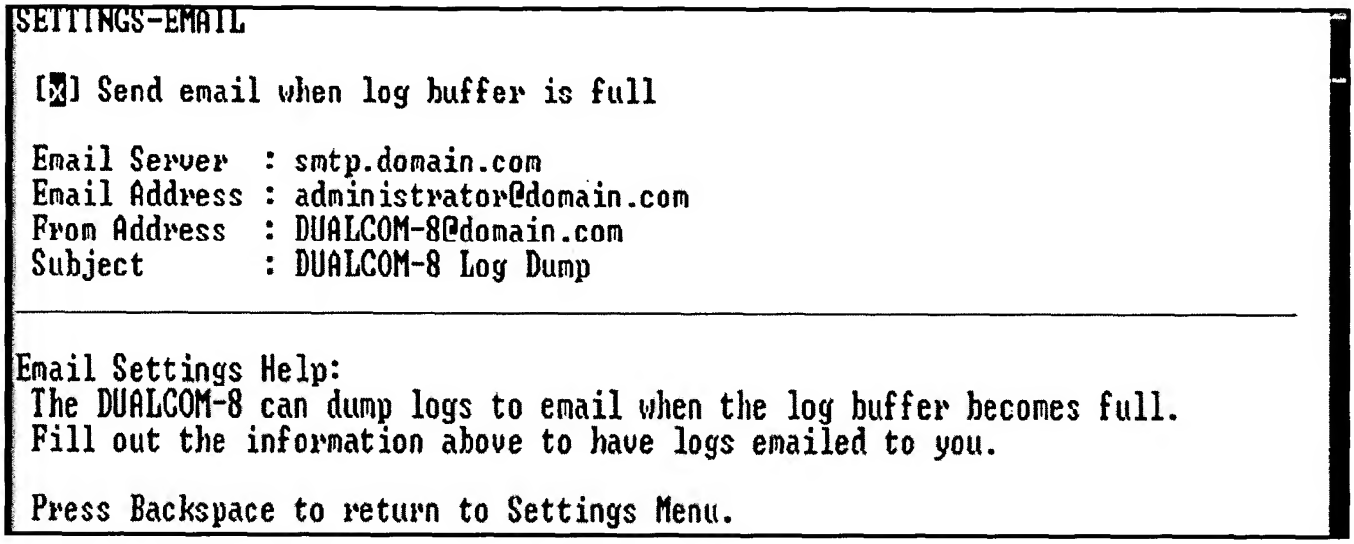
SETTINGS-EMAIL
[x] Send email when log buffer is full
Email Server : smtp.domain.com
Email Address : administrator@domain.com
From Address : DUALCOM-8@domain.com
Subject : DUALCOM-8 Log Dump
Email Settings Help:
The DUALCOM-8 can dump logs to email when the log buffer becomes full.
Fill out the information above to have logs emailed to you.
Press Backspace to return to Settings Menu.

FIG. 10

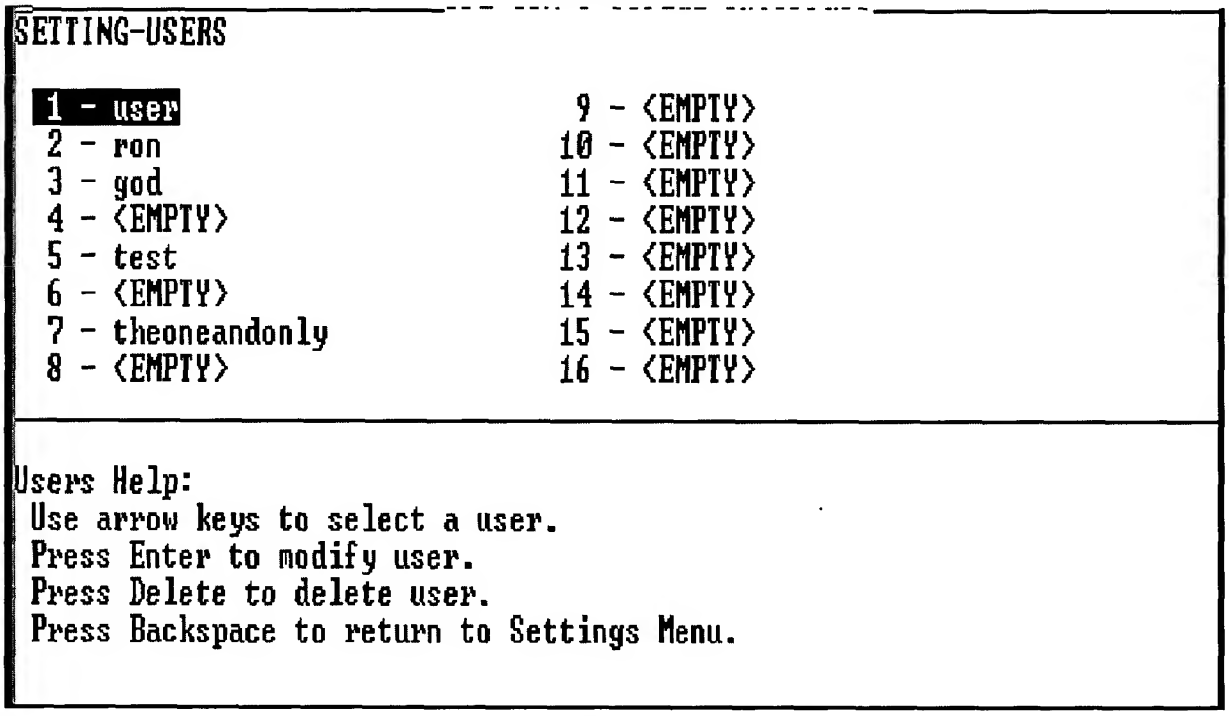
SETTING-USERS
1 - user
2 - ron
3 - god
4 - <EMPTY>
5 - test
6 - <EMPTY>
7 - theoneandonly
8 - <EMPTY>
9 - <EMPTY>
10 - <EMPTY>
11 - <EMPTY>
12 - <EMPTY>
13 - <EMPTY>
14 - <EMPTY>
15 - <EMPTY>
16 - <EMPTY>
Users Help:
Use arrow keys to select a user.
Press Enter to modify user.
Press Delete to delete user.
Press Backspace to return to Settings Menu.

FIG. 11

```
MODIFY USER 1

      Username: Robert Ricks
      Password: ********
Retype Password: ********
  Administrator: [x]
User can modify these outlets (Administrators can modify ALL outlets):
 1   2   3   4   5   6   7   8
[x] [x] [x] [x] [ ] [x] [ ] [x]

[SAVE USER]

-------------------------------------------------------------------------

Modify User Help:
 You MUST choose [SAVE USER] for user settings changes to apply.
 Use arrow keys to navigate.
 Press Enter to change setting.
 Press Backspace to cancel and return to Settings Menu.
```

FIG. 12

OUTLETS	LOGS	USERS	SETUP	USER:RobRicks 9:20 PM • Thu 10/31/2002	
1	ON	OFF	Web Server		0.0A
2	ON	OFF	Router		0.5A
3	ON	OFF	Com Sever 1		0.0A
4	ON	OFF	Com Server 2		0.0A
5	ON	OFF	Darwin Server		0.0A
6	ON	OFF	Hub #1		0.0A
7	ON	OFF	Accounting 1		0.0A
8	ON	OFF	Room Camera		0.0A
				Total	0.5A

FIG. 13

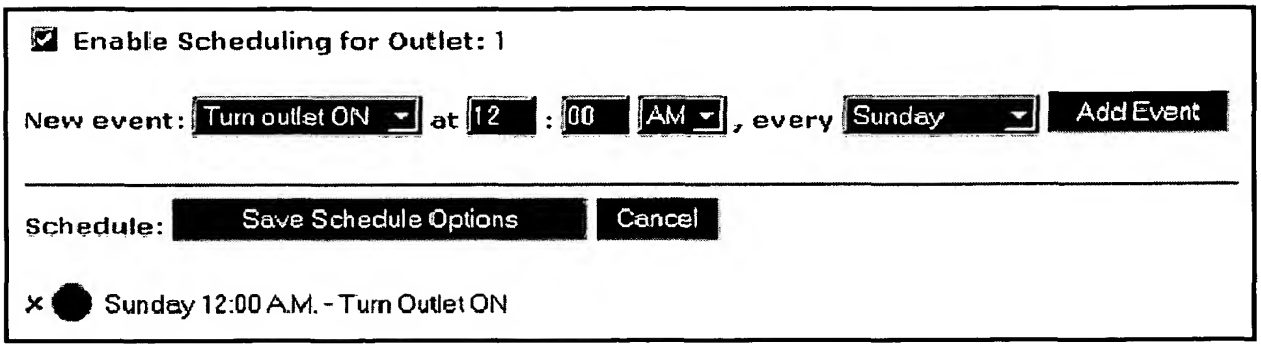
Enable Scheduling for Outlet: 1
New event: Turn outlet ON at 12 : 00 AM , every Sunday Add Event
Schedule: Save Schedule Options Cancel
Sunday 12:00 A.M. - Turn Outlet ON

FIG. 14

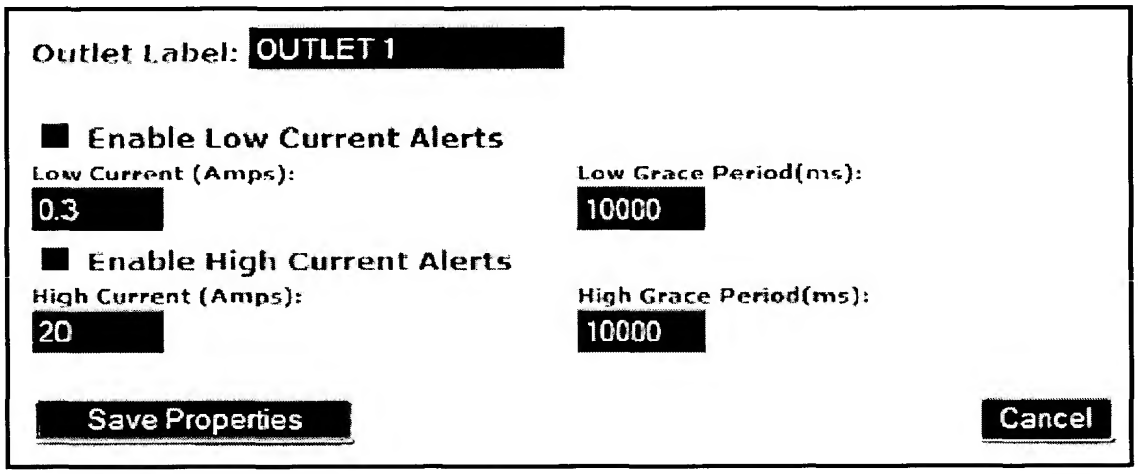
Outlet Label: OUTLET 1
Enable Low Current Alerts
Low Current (Amps):
0.3
Low Grace Period(ms):
10000
Enable High Current Alerts
High Current (Amps):
20
High Grace Period(ms):
10000
Save Properties
Cancel

FIG. 15

OUTLETS LOGS USERS SETUP

USER:RobRicks
8:49 PM • Thu 10/31/2002

```
<134>Oct 31 20:49:32 198.144.195.110 RobRicks turned outlet(s) 7 off from 63.201.59
<134>Oct 31 20:49:30 198.144.195.110 RobRicks turned outlet(s) 5 off from 63.201.59
<134>Oct 31 20:49:30 198.144.195.110 RobRicks turned outlet(s) 3 off from 63.201.59
<134>Oct 31 20:49:29 198.144.195.110 RobRicks turned outlet(s) 1 off from 63.201.59
<134>Oct 31 20:48:08 198.144.195.110 admin1 turned outlet(s) 4 on from 63.201.59.24
<134>Oct 31 20:48:06 198.144.195.110 admin1 turned outlet(s) 3 on from 63.201.59.24
<134>Oct 31 20:48:05 198.144.195.110 admin1 turned outlet(s) 2 on from 63.201.59.24
<134>Oct 31 20:48:04 198.144.195.110 admin1 turned outlet(s) 1 on from 63.201.59.24
<134>Oct 31 20:47:45 198.144.195.110 admin1 turned outlet(s) 4 off from 63.201.59.2
<134>Oct 31 20:47:44 198.144.195.110 admin1 turned outlet(s) 3 off from 63.201.59.2
<134>Oct 31 20:47:43 198.144.195.110 admin1 turned outlet(s) 2 off from 63.201.59.2
<134>Oct 31 20:47:42 198.144.195.110 admin1 turned outlet(s) 1 off from 63.201.59.2
```

FIG. 16

OUTLETS LOGS USERS SETUP

USER:admin1
8:46 PM • Thu 10/31/2002

Outlet Permissions

Username	Administrator	1	2	3	4	5	6	7	8		
1.admin1	•	•	•	•	•	•	•	•	•	Edit	Delete
2.RobRicks	•	•	•	•	•	•	•	•	•	Edit	Delete
3.<empty>										Edit	Delete
4.<empty>										Edit	Delete
5.<empty>										Edit	Delete
6.<empty>										Edit	Delete

FIG. 17

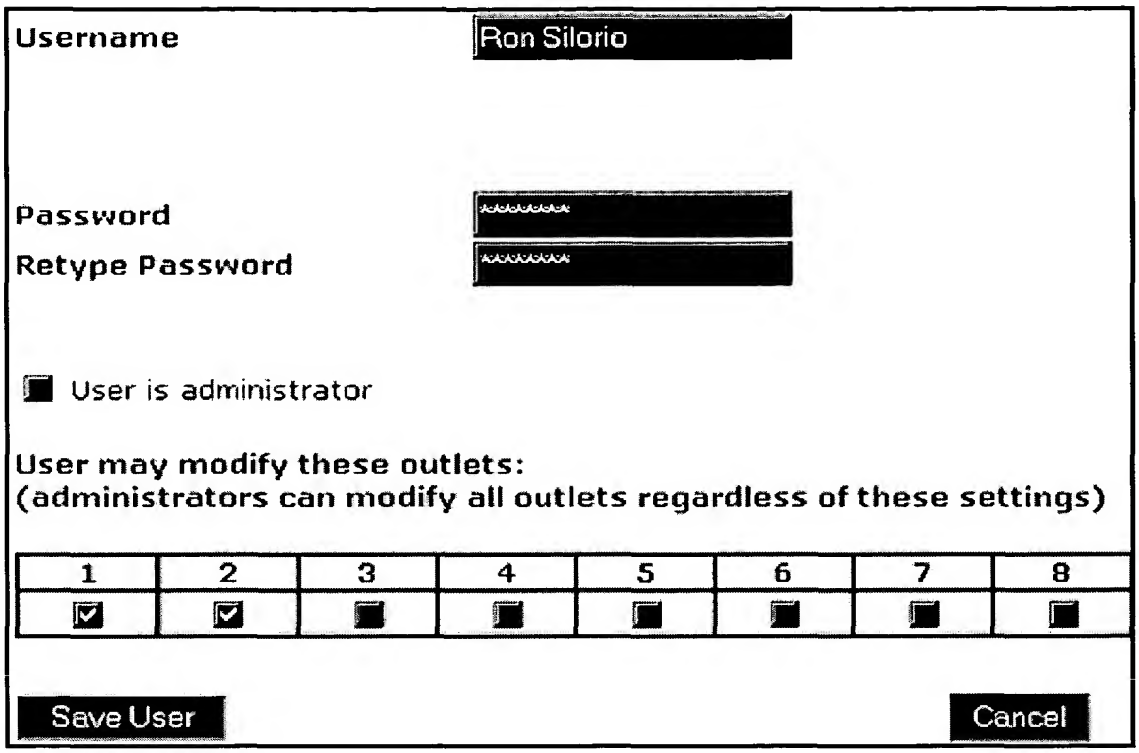
Username
Ron Silorio
Password
Retype Password
User is administrator
User may modify these outlets:
(administrators can modify all outlets regardless of these settings)
1
2
3
4
5
6
7
8
Save User
Cancel

FIG. 18

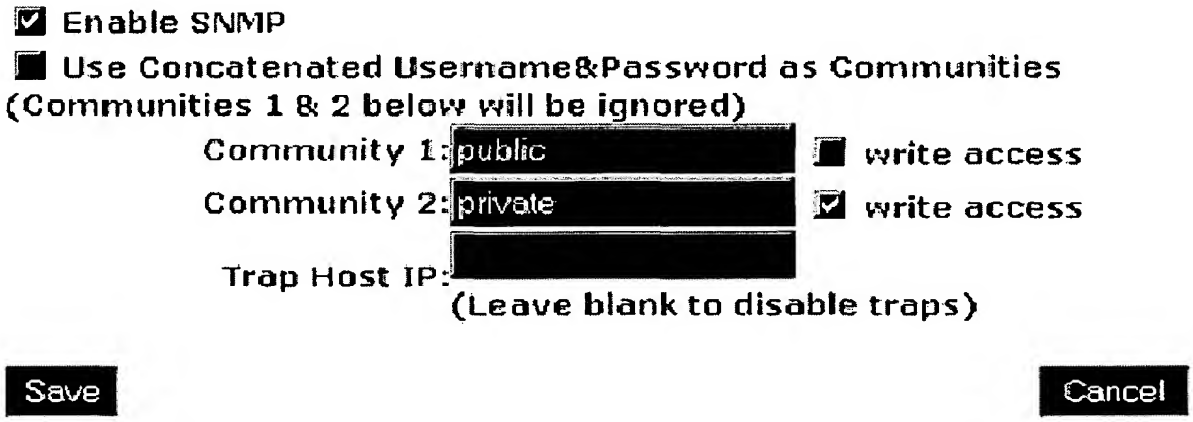
Enable SNMP
Use Concatenated Username&Password as Communities
(Communities 1 & 2 below will be ignored)
Community 1:
public
write access
Community 2:
private
write access
Trap Host IP:
(Leave blank to disable traps)
Save
Cancel

FIG. 24

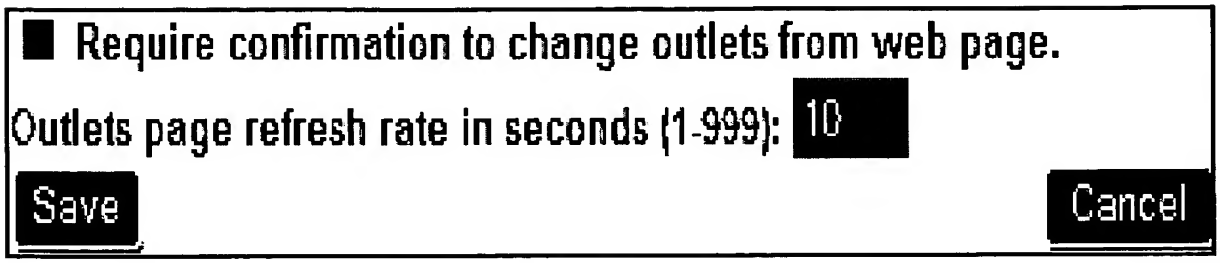
Require confirmation to change outlets from web page.
Outlets page refresh rate in seconds (1-999): 10
Save
Cancel

FIG. 25

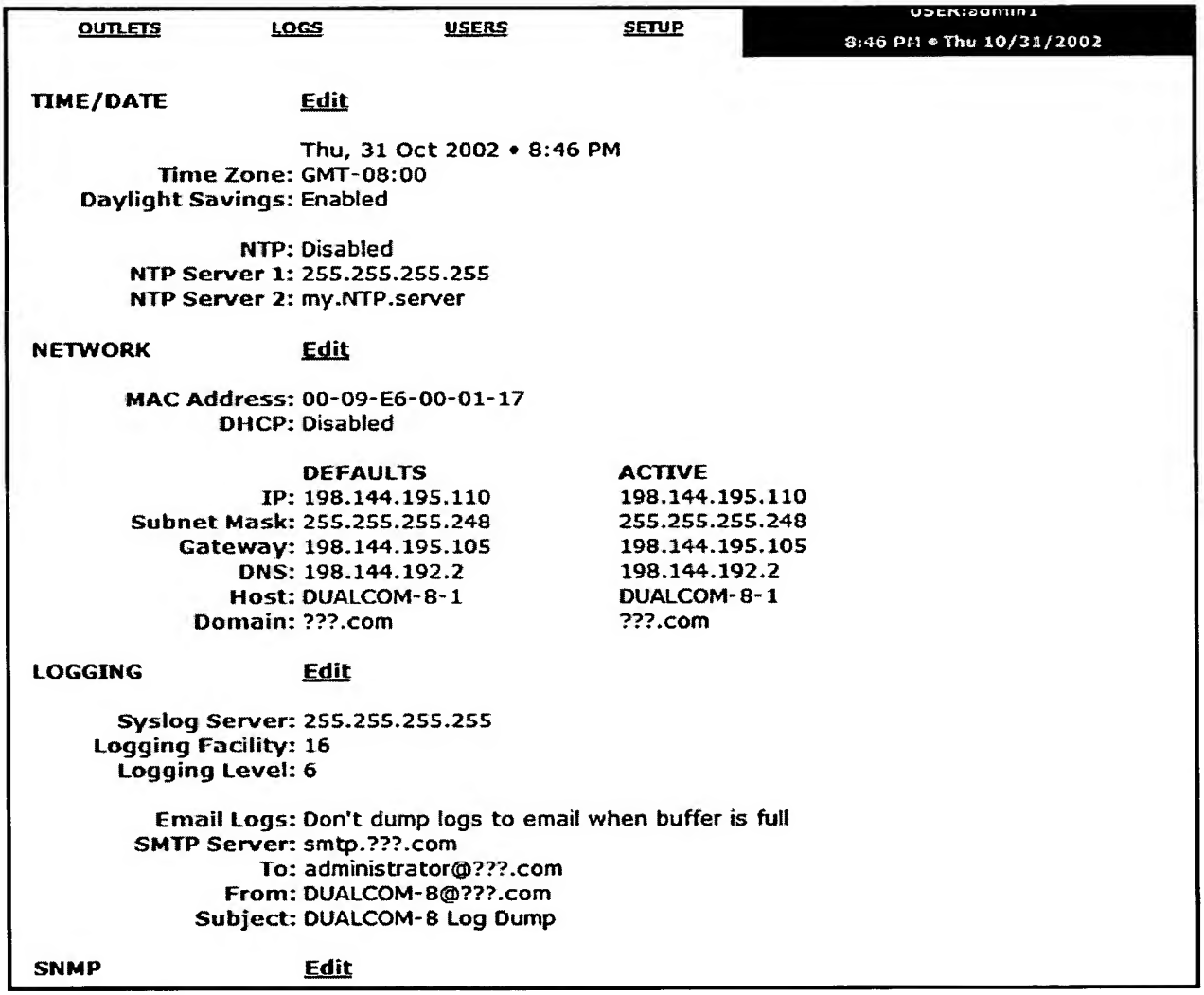
OUTLETS
LOGS
USERS
SETUP
USER:admin1
8:46 PM • Thu 10/31/2002
TIME/DATE
Edit
Thu, 31 Oct 2002 • 8:46 PM
Time Zone: GMT-08:00
Daylight Savings: Enabled
NTP: Disabled
NTP Server 1: 255.255.255.255
NTP Server 2: my.NTP.server
NETWORK
Edit
MAC Address: 00-09-E6-00-01-17
DHCP: Disabled
DEFAULTS
ACTIVE
IP: 198.144.195.110 198.144.195.110
Subnet Mask: 255.255.255.248 255.255.255.248
Gateway: 198.144.195.105 198.144.195.105
DNS: 198.144.192.2 198.144.192.2
Host: DUALCOM-8-1 DUALCOM-8-1
Domain: ???.com ???.com
LOGGING
Edit
Syslog Server: 255.255.255.255
Logging Facility: 16
Logging Level: 6
Email Logs: Don't dump logs to email when buffer is full
SMTP Server: smtp.???.com
To: administrator@???.com
From: DUALCOM-8@???.com
Subject: DUALCOM-8 Log Dump
SNMP
Edit

FIG. 19

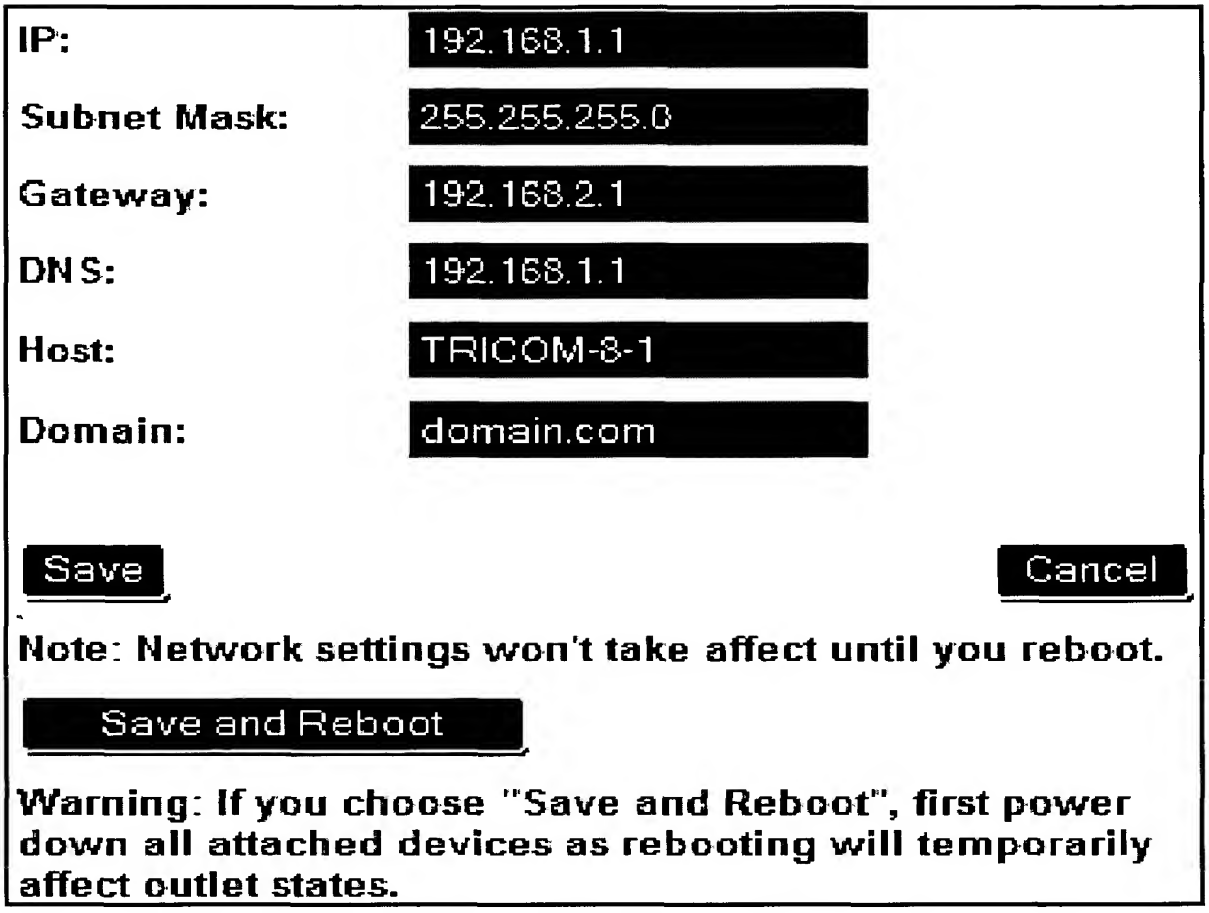
IP:
192.168.1.1
Subnet Mask:
255.255.255.0
Gateway:
192.168.2.1
DNS:
192.168.1.1
Host:
TRICOM-8-1
Domain:
domain.com
Save
Cancel
Note: Network settings won't take affect until you reboot.
Save and Reboot
Warning: If you choose "Save and Reboot", first power down all attached devices as rebooting will temporarily affect outlet states.

FIG. 20

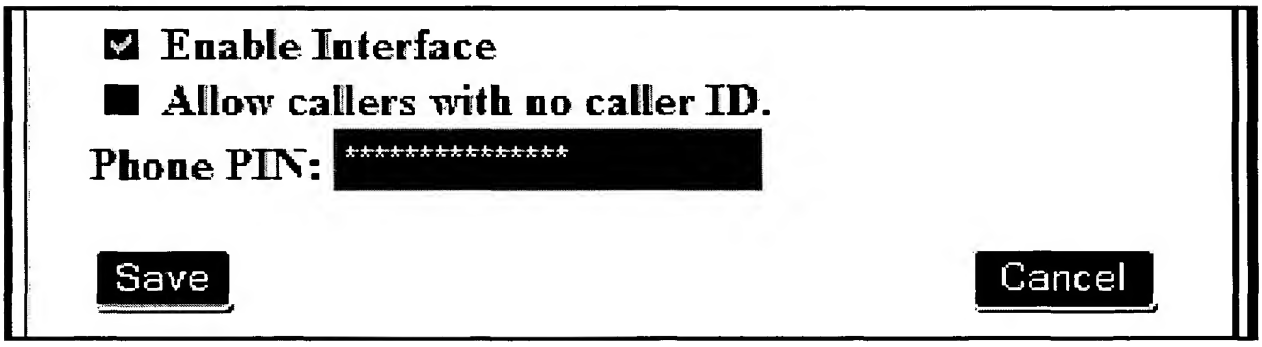
Enable Interface
Allow callers with no caller ID.
Phone PIN:
Save
Cancel

FIG. 21

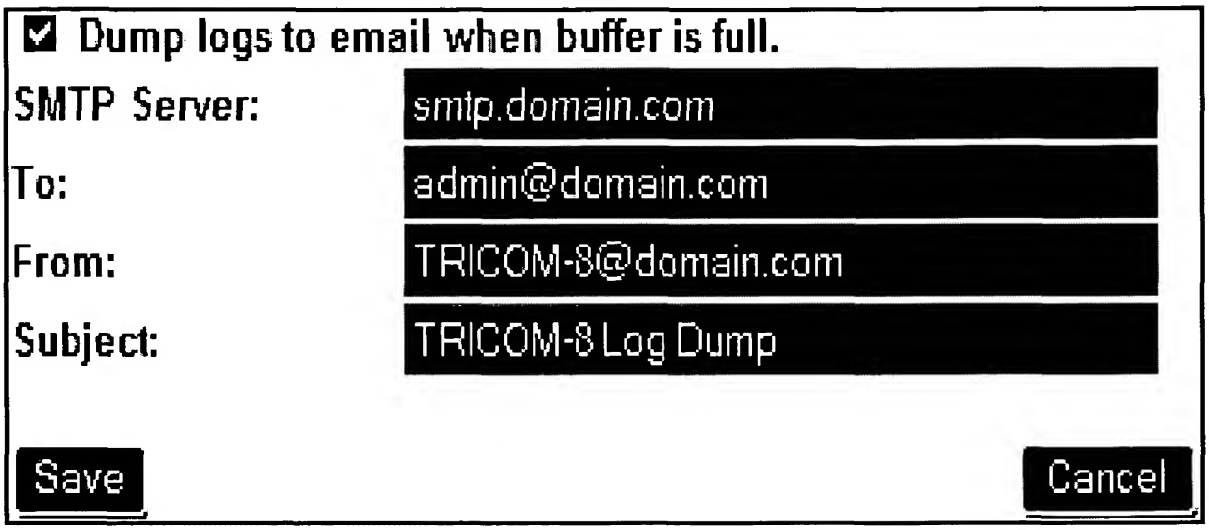
Dump logs to email when buffer is full.
SMTP Server:
smtp.domain.com
To:
admin@domain.com
From:
TRICOM-8@domain.com
Subject:
TRICOM-8 Log Dump
Save
Cancel

FIG. 22

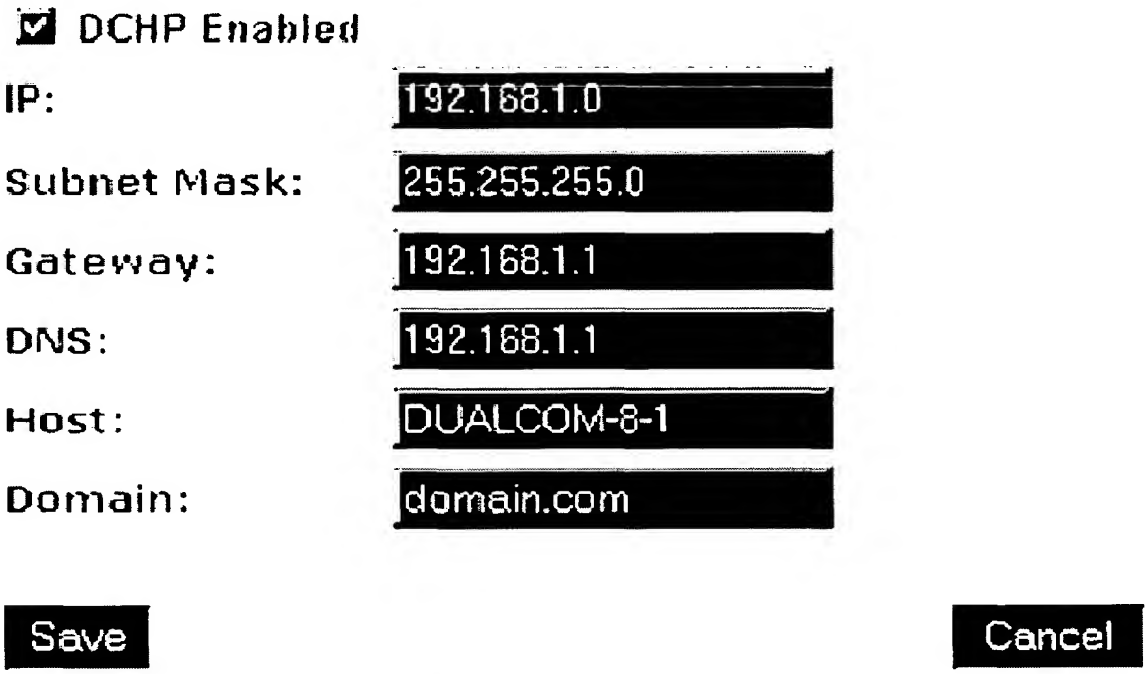
DCHP Enabled
IP:
192.168.1.0
Subnet Mask:
255.255.255.0
Gateway:
192.168.1.1
DNS:
192.168.1.1
Host:
DUALCOM-8-1
Domain:
domain.com
Save
Cancel
Note: Network settings won't take affect until you reboot.
Save and Reboot
Warning: If you choose "Save and Reboot", first power down all attached devices as rebooting will temporarily affect outlet states.

FIG. 23

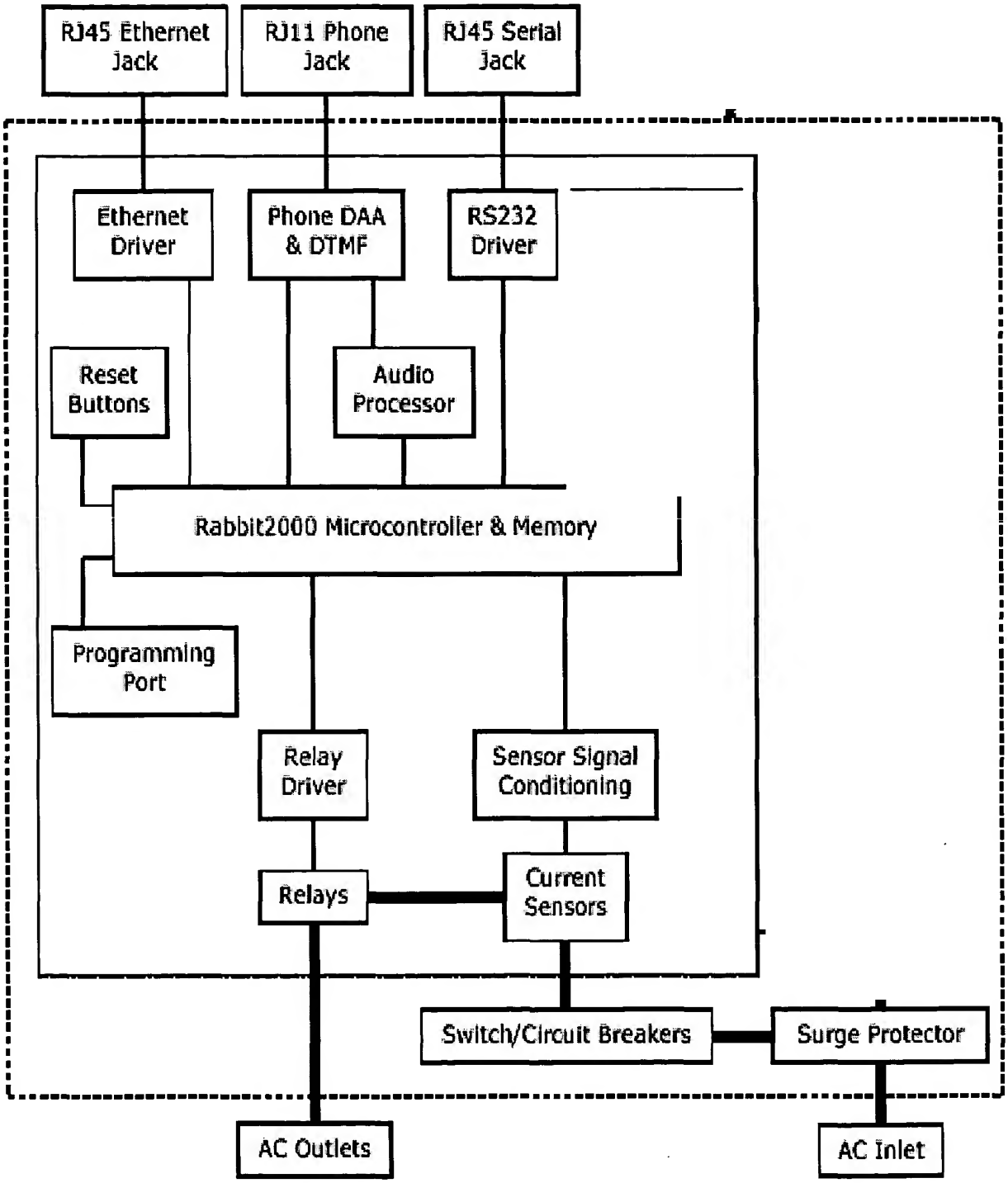
RJ45 Ethernet Jack
RJ11 Phone Jack
RJ45 Serial Jack
Ethernet Driver
Phone DAA & DTMF
RS232 Driver
Reset Buttons
Audio Processor
Rabbit2000 Microcontroller & Memory
Programming Port
Relay Driver
Sensor Signal Conditioning
Relays
Current Sensors
Switch/Circuit Breakers
Surge Protector
AC Outlets
AC Inlet

FIG. 26

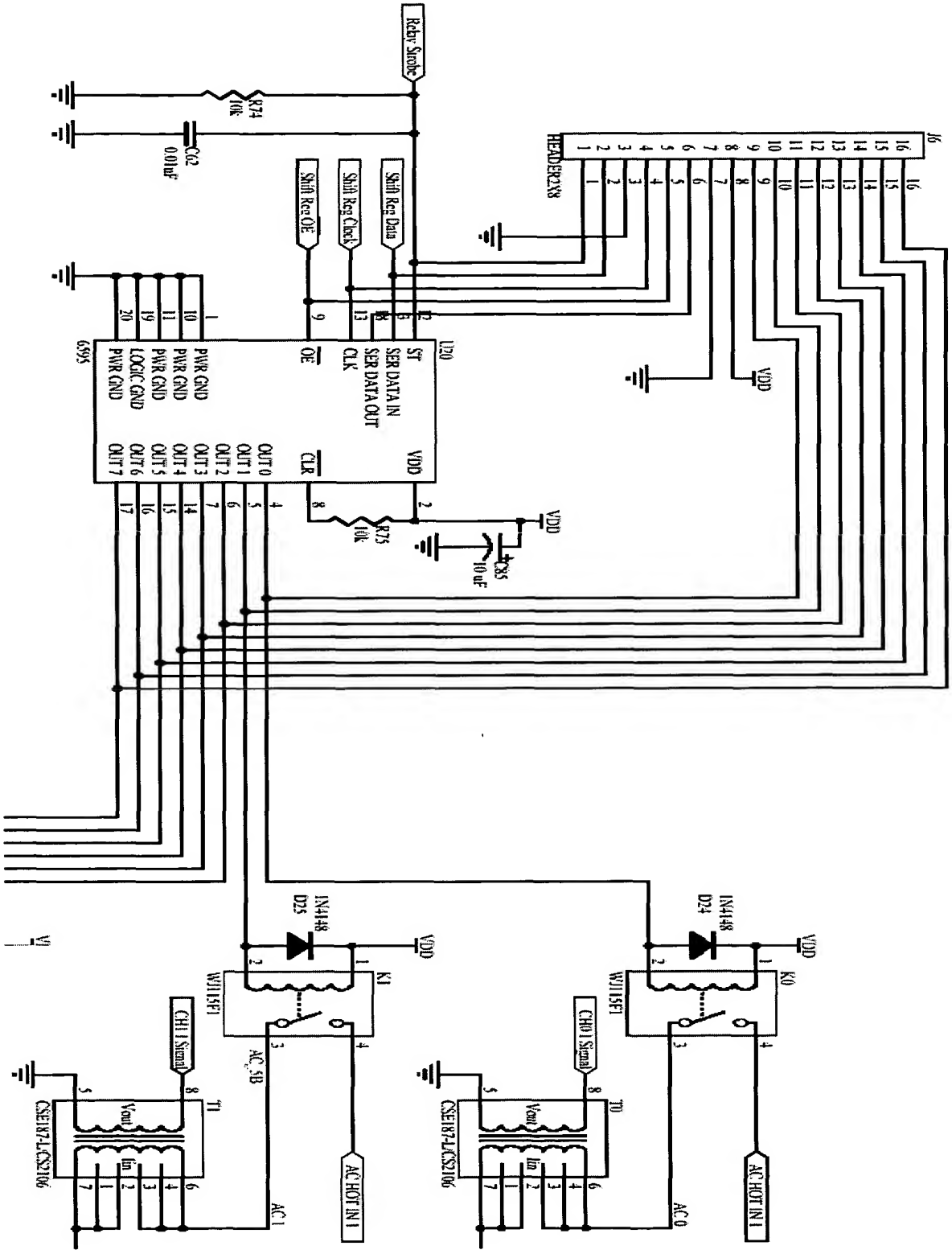
Rcbv Strobe
R74
10k
C62
0.01uF
Shift Reg OE
Shift Reg Clock
Shift Reg Data
HEADER2X8
J6
VDD
6595
PWR GND
PWR GND
LOGIC GND
PWR GND
OE
CLK
SER DATA OUT
SER DATA IN
ST
L120
OUT 7
OUT 6
OUT 5
OUT 4
OUT 3
OUT 2
OUT 1
OUT 0
CLR
R75
10k
C85
10 uF
1N4148
D25
D24
K1
K0
W115F1
CH11 Sigma
CH10 Sigma
AC SB
T1
T0
Vout
Iin
CSE187-LACS2106
AC HOT IN 1
AC 1
AC 0
V1

FIG. 27

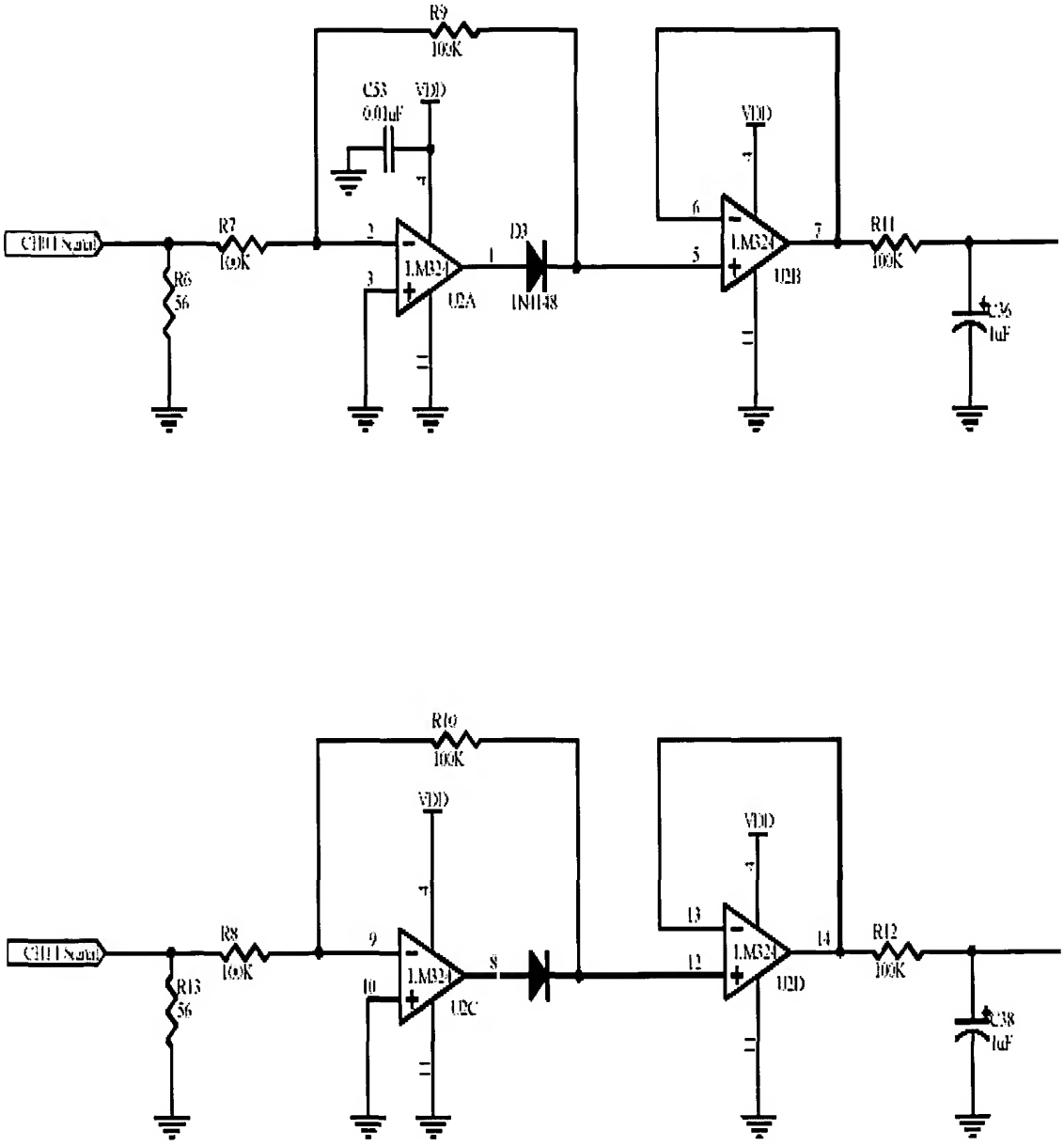
R9
100K
C53
0.01uF
VDD
R7
100K
R6
56
LM324
U2A
D3
1N4148
LM324
U2B
R11
100K
C36
1uF
R10
100K
R8
100K
R13
56
LM324
U2C
LM324
U2D
R12
100K
C38
1uF

FIG. 28A

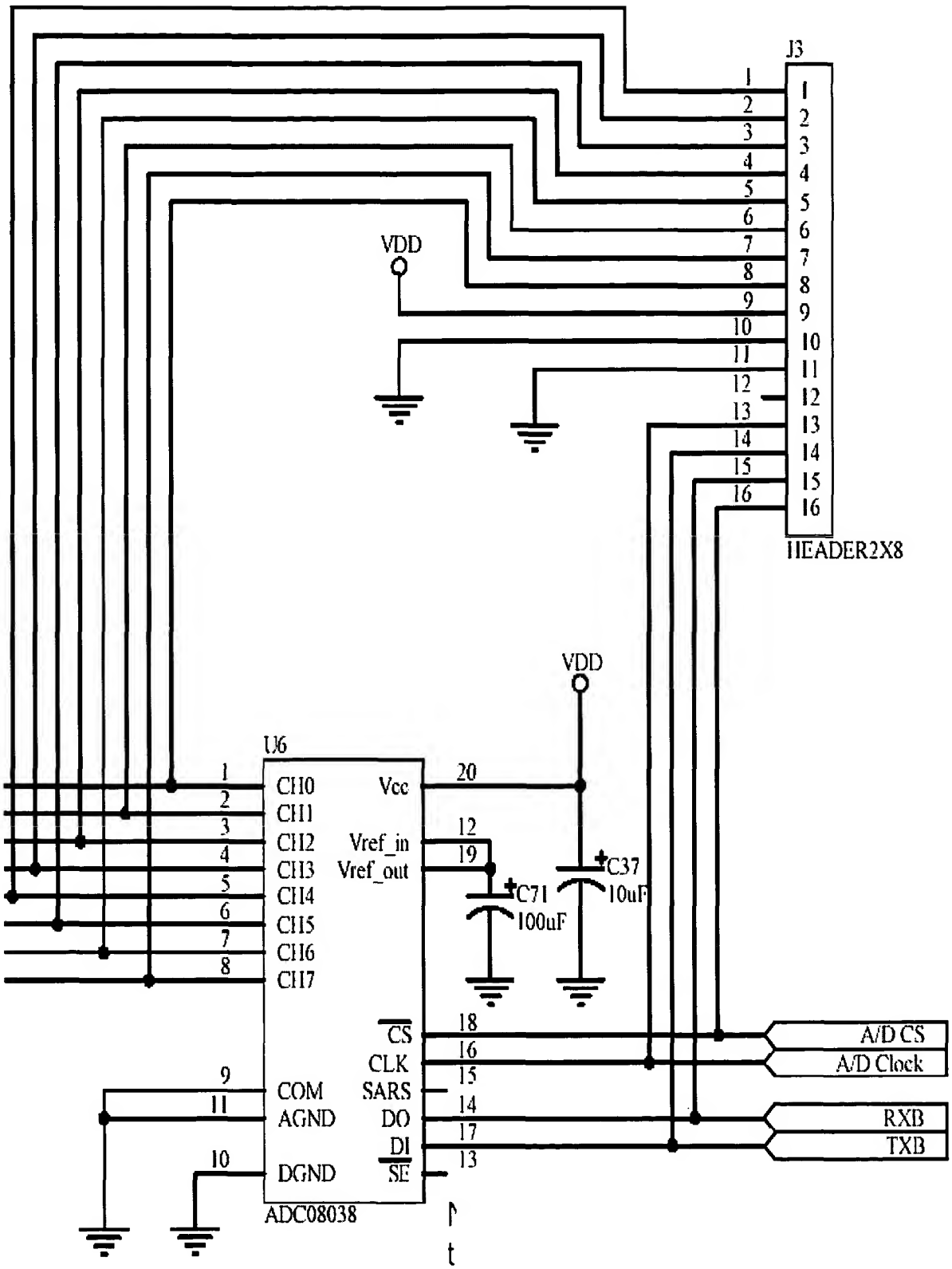
J3
HEADER2X8
VDD
VDD
U6
CH0
CH1
CH2
CH3
CH4
CH5
CH6
CH7
Vcc
Vref_in
Vref_out
COM
AGND
DGND
CS
CLK
SARS
DO
DI
SE
ADC08038
C71
100uF
C37
10uF
A/D CS
A/D Clock
RXB
TXB

FIG. 28B